

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Steven Maddocks et al.	§	Art Unit:	2182
		§		
Serial No.:	10/757,757	§	Confirmation No.:	4254
		§		
Filed:	January 14, 2004	§	Examiner:	Tammara R. Peyton
		§		
For:	Interface Manager and	§	Atty. Dkt. No.:	200315416-1
	Methods of Operation in a	§		(HPC.0402US)
	Storage Network	§		

**Mail Stop Appeal Brief-Patents**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**REPLY BRIEF**

Sir:

The following sets forth Appellant's Reply to the Examiner's Answer dated December 3, 2009.

**A. REPLY TO EXAMINER'S ANSWER REGARDING THE REJECTION OF CLAIMS 12, 14-17, 35**

As argued by the Appeal Brief, the hypothetical combination of Blumenau, Dimitroff, and Suzuki fails to disclose or hint at:

generating, by the interface manager, a logical map identifying at least some of the storage system devices based on the device information.

In the Examiner's Answer, the Examiner cited the following passages of Dimitroff: column 2, lines 56 – column 3, line 54; column 3, line 66 – column 4, line 67; column 5, lines 1-60. 12/3/2009 Examiner's Answer at 15. The Examiner argued that these passages of Dimitroff disclose the "logical map" of claim 12.

Specifically, the Examiner argued that these passages of Dimitroff disclose security and access parameters that identify devices on a storage area network. *Id.* Appellant respectfully

submits that this assertion is incorrect. The parametrics discussed in these passages of Dimitroff are “used in classifying the shared level of a particular storage unit.” Dimitroff, 1:45-50. The parametrics are used to establish different standardized shared levels, such as a first shared level, second shared level, third shared level, and fourth shared level. *Id.*, 2:60-66. The parametrics enables a host or user to measure the “sharedness” of any of the storage units. *Id.*, 3:15-18. A device can be assigned to a first shared level, a second shared level, a third shared level, or a fourth shared level. *Id.*, 4:1-67.

Classifying devices into different shared levels, as taught by Dimitroff, is completely different from generating, by an interface manager, a logical map that identifies at least some of the storage system devices based on device information from a plurality of system controllers operatively associated with storage system devices in a storage system.

The Examiner’s Answer also appears to argue that “an address/line of a communication channel/link/table” constitutes the “logical map” of claim 12. It is unclear what “address/line” or “communication channel/link/table” the Examiner is referring to. Column 2 of Dimitroff does note that the system network 102 can be a high-speed communication system designed to link several workstations and hosts together so as to share computing resources. Dimitroff, 2:21-26. However, equating the system network 102 of Dimitroff with the logical map that is generated based on device information from a plurality of interface controllers operatively associated with storage system devices, as recited in claim 1, is erroneous.

The Examiner also argued that Appellant did not address Suzuki in the Appeal Brief. Appellant respectfully disagrees. The Appeal Brief specifically stated that the hypothetical combination of all references, including Dimitroff, Blumenau, and Suzuki, does not teach or hint

at all elements of the claim. Suzuki was cited by the Examiner for a different purpose, not for the generation of a logical map as recited in claim 12.

In view of the foregoing and in view of the reasons set forth in the Appeal Brief, it is respectfully submitted that the obviousness rejection of claim 12 and its dependent claims is clearly erroneous.

**B. REPLY TO EXAMINER'S ANSWER REGARDING THE REJECTION OF CLAIM 13**

Claim 13 depends from claim 12, and further recites aggregating configuration information from each of the storage system devices for the logical map. As pointed out by the Appeal Brief, the final rejection did not identify what in Blumenau, Dimitroff, and Suzuki provides any teaching or hint of the claimed subject matter. In the Examiner's Answer, the Examiner cited column 2, lines 1-67; column 3, line 66; column 4, line 67; and column 5, lines 1-60, of Dimitroff as purportedly disclosing the aggregation of configuration information from each of the storage system devices for the logical map. As noted above, these passages disclose using parametrics to classify different capabilities of storage units to establish standardized shared levels. This teaching has nothing to do with aggregating configuration information from each of the storage system devices for the logical map. Examiner's Answer at 22.

Claim 13 is therefore further allowable for the foregoing reason.

**C. REPLY TO EXAMINER'S ANSWER REGARDING THE REJECTION OF CLAIMS 25, 28, 32, 36**

With respect to claim 25, the Appeal Brief argued that the hypothetical combination of Blumenau, Dimitroff, and Suzuki fails to disclose the following element of claim 25:

receive device information relating to the storage system devices from the controllers, wherein the received device information includes at least one of numbers and types of the storage system devices operatively associated with the controllers, and capacities of the storage system devices,

generate at least one logical map based on the received device information.

In the Examiner's Answer, the Examiner argued that column 2, lines 45-65, and column 3, lines 15-54, of Dimitroff discloses "numbers and types of the storage system devices." Examiner's Answer at 25. The cited column 2 passage of Dimitroff refers to a computer system that has a tape drive, a tape library, a disk drive, a disk drive subsystem, an optical drive, an optical drive subsystem, a multimedia drive, and memory within a CPU. However, there is absolutely no hint given in this passage of Dimitroff of **numbers and types** of storage system devices that are **used** for generating a logical map.

The cited column 3 passage of Dimitroff refers to measuring the "sharedness" of any of the storage units. However, there is no teaching regarding **numbers and types** of storage system devices that are **used** to generate a logical map, as recited in claim 25.

With respect to "capacities of the storage system devices," the Examiner cited column 5, lines 45-67, of Dimitroff. This passage states that the intelligent controllers use a protocol to communicate with an attached storage unit. Dimitroff, 5:50-52. The cited passage also states that in addition to the capabilities of the controllers, the intelligent controllers include time availability, capacity availability, and performance availability capabilities. *Id.*, 5:52-55. However, this passage provides no hint whatsoever of receiving device information including capacities of the storage system devices that is used to generate at least one logical map, as recited in claim 25.

In view of the foregoing, and in view of the arguments presented in the Appeal Brief, it is clear that the obviousness rejection of claim 25 and its dependent claims is erroneous.

**D. REPLY TO EXAMINER'S ANSWER REGARDING THE REJECTION OF CLAIMS 21, 22, 24, 37**

With respect to claim 21, the Appeal Brief argued that the Examiner is incorrect in arguing that Yung is related to an automated storage system that includes data access drives and transfer robotics, where the data access drives are to access data on data storage media, and where the transfer robotics are to transfer data storage media in the automated storage system. Nor does Yung relate to generating a logical map used by hosts to allow access of the data access drives (to access data on data storage media) and the transfer robotics (to transfer data storage media in the automated storage system).

In the Examiner's Answer, the Examiner pointed further to ¶¶ [0054]-[0057] of Yung. Examiner's Answer at 39. Although ¶ [0054] refers to a "storage device," there is no hint in these passages of Yung regarding the "transfer robotics" of the claim.

Therefore, in view of the foregoing and in view of the arguments presented in the Appeal Brief, the obviousness rejection of claim 21 and its dependent claims is erroneous.

**E. CONCLUSION**

The remaining points raised in the Examiner's Answer have already been rebutted in the Appeal Brief.

In view of the foregoing, and in view of the Appeal Brief, reversal of all final rejections is respectfully requested.

Respectfully submitted,

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/Dan C. Hu/

Dan C. Hu  
Registration No. 40,025  
TROP, PRUNER & HU, P.C.  
1616 South Voss Road, Suite 750  
Houston, TX 77057-2631  
Telephone: (713) 468-8880  
Facsimile: (713) 468-8883